

## CLAIMS

What is claimed is:

- 1    1.     A method comprising:  
2           assembling tokens that define processing for producing a graphical state;  
3           assembling a shell rasterizer using the tokens;  
4           selectively modifying portions of the shell rasterizer with replacement logic;  
5       and  
6           selectively inserting memory management logic into portions of the shell  
7       rasterizer to produce a modified rasterizer.
- 1    2.     The method of claim 1 further comprising associating a pointer reference to  
2       a location of the modified rasterizer in a hash table, wherein the pointer reference is  
3       hashed based on the graphical state.
- 1    3.     The method of claim 1 further comprising returning a pointer reference after  
2       a subsequent request is received for the graphical state.
- 1    4.     The method of claim 1 wherein selectively modifying the portions further  
2       comprises determining a machine architecture that processes the method in order to  
3       select the portions.
- 1    5.     The method of claim 1 wherein selectively inserting the memory  
2       management logic includes inserting the memory management logic based on  
3       simulated memory states for an executing shell rasterizer.
- 1    6.     The method of claim 5 wherein selectively inserting the memory  
2       management logic further includes inserting the memory management logic using a  
3       memory interface associated with memory management for a machine architecture  
4       that processes the method.

- 1 7. A method comprising:  
2 selectively replacing rasterizer logic in a rasterizer based on an architecture  
3 of a machine that processes the rasterizer;  
4 selectively inserting memory management logic into the rasterizer using  
5 properties of the architecture; and  
6 indexing the modified rasterizer in memory.
- 1 8. The method of claim 7 wherein selectively replacing rasterizer logic includes  
2 varying the rasterizer logic based on the properties and a graphical state.
- 1 9. The method of claim 7 wherein selectively inserting the memory  
2 management logic includes selecting the memory management logic based on  
3 simulating the execution of the rasterizer on the architecture.
- 1 10. The method of claim 7 wherein selectively inserting the memory  
2 management logic includes adding pushing and popping instructions for adding and  
3 removing portions of the memory management logic from a stack.
- 1 11. The method of claim 7 wherein indexing the rasterizer includes hashing a  
2 pointer reference to the rasterizer, wherein the pointer reference is hashed based on  
3 a graphical state associated with the rasterizer.
- 1 12. The method of claim 7 further comprising returning the modified rasterizer  
2 or a pointer reference to the modified rasterizer after a request for the modified  
3 rasterizer is received.
- 1 13. An article having a machine accessible medium having associated  
2 instructions, wherein the instructions, when executed, produce a rasterizer, the  
3 machine comprising at least one component performing:

4 assembling a shell rasterizer from a provided graphical state;  
5 modifying the shell rasterizer with replacement logic and memory  
6 management logic to produce a modified rasterizer; and  
7 indexing the modified rasterizer based on the provided graphical state.

1 14. The article of claim 13 wherein the instructions further comprise flushing  
2 memory used for producing the modified rasterizer after indexing the rasterizer.

1 15. The article of claim 13 wherein the instructions further comprise selecting  
2 the replacement logic and the memory management based on properties of an  
3 architecture for the machine and the provided graphical state.

1 16. The article of claim 13 wherein the instructions further comprise acquiring  
2 the replacement logic from a library of routines associated with performing  
3 rasterizer operations.

1 17. The article of claim 13 wherein the instructions further comprise acquiring  
2 the memory management logic based on an application programming interface  
3 (API) library associated with a memory stack of a machine.

1 18. A system, comprising:  
2 a token building application that assembles a processing order needed to  
3 produce a graphical state; and  
4 a composing application that assembles a generic shell rasterizer to satisfy  
5 the processing order;  
6 wherein the composing application also dynamically replaces and inserts  
7 logic into the shell rasterizer to produce a modified rasterizer.

1 19. The system of claim 18 further comprising an indexing application for  
2 associating the graphical state with a pointer reference to a location of the modified  
3 rasterizer.

1 20. The system of claim 18 wherein the composing application uses replacement  
2 logic selected for a specific machine architecture.

1 21. The rasterizer building system of claim 18 wherein the composing  
2 application uses insertion logic selected based on a stack interface associated with a  
3 machine architecture.

1 22. A data structure residing in a computer-accessible medium for producing a  
2 rasterizer image, the data structure comprising:  
3 shell logic produced from a graphical state;  
4 replacement logic that selectively replaces portions of the shell logic based  
5 on an architecture of a machine that will process the data structure; and  
6 insertion logic that is selectively intertwined into the shell logic to perform  
7 memory management when the rasterizer data structure is processed.

1 23. The data structure of claim 22 wherein the data structure is dynamically  
2 generated on the machine after the graphical state is detected.

1 24. The data structure of claim 22 wherein the data structure is prefabricated and  
2 made accessible on the machine based on the graphical state and the machine.

1 25. The data structure of claim 22 wherein a reference to the data structure is  
2 indexed based on the graphical state.